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IDEA-0155-67

Copy 12 of 12

20 January 1967

MEMORANDUM FOR : Acting Deputy for Materiel, OSA

SUBJECT : Discussion of [] Pilot
Protective Assemblies

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REFERENCE : IDEA-0132-67 dated 13 January 1967

1. After carefully reviewing the referenced memorandum from BPD/COMPT, I feel that a clarification of this office's position is required and that many of the questions posed require immediate answers. To do this, the following discussion will refer to each paragraph and subparagraph of BPD/COMPT's memorandum.

2. Reference paragraph 2 of subject memo, the following comments apply.

a. (Ref 2a) It was my understanding that there was no question of configuration regarding life support equipment for the U-2R. The following documents refer to or mention full pressure suits for the U-2R:

(1) Letter from C.L. Johnson to Dr. Wheelon dated 17 January 1966 accompanying SP-937, "Proposal for U-2R Airplane".

(2) Memo from ASD/R&D/OSA [] dated 4 February 1966.

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(3) Memo from SAS/O/OSA [] dated 16 September 1966.

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(4) Memo from D/R&D/OSA (IDEA-2747-66) dated 19 September 1966.

(5) Memo from ASD/R&D/OSA (IDEA-3352-66) dated 28 September 1966.

NRO review(s)
completed.

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(6) Memo from ASD/R&D/OSA (IDEA-3423-66)
dated 21 November 1966.

Also, since full pressure suits were used at the U-2R Cockpit mockup review 28-30 November 1966 to base pilot comments on for finalization of cockpit layout, it seemed reasonable to assume there was no question that full pressure suits would in fact be used in the U-2R. However, if at this stage of development the previous decisions are invalidated and a new decision must be deferred for joint CIA/AF CCB consideration and D/NRO approval, it must be understood by all concerned that it is unlikely that the proposed PPA's will be available for the LAC test pilots in time for delivery of article #1. In addition to the time required to develop a prototype, there is a 180 day lead time on various suit components which prompted the urgency with which the PPA Proposal was submitted to BPD/COMPT/OSA.

b. (Ref 2b) Under the objectives of the Technical Proposal submitted with memo (IDEA-0022-67) it is stated that "This proposal outlines a program of product improvement for PPA 6N-S901J". The S-901 J PPA, as pointed out in one or more of the memos referenced in paragraph 2a above, is that PPA designed for and used in the SR-71, and as such represents "existing equipment". The modifications of the basic S-901 J PPA configuration are dictated by the differences in projected mission profiles and requirements between the SR-71 and the U-2R.

c. (Ref 2c) This is certainly an unfortunate oversight since apparently all parties concerned completely ignored the fact that the pilots would require up-to-date protective equipment. Apparently in spite of the LAC proposal's reference to "the latest pressure suit" and the memo from ASD/R&D/OSA [redacted] dated 4 February 1966, someone presumed, during funding deliberations, that the present obsolete U-2 partial pressure suit would continue to be used. In any case, the time is now to rectify this oversight.

d. (Ref 2d) The Air Force participated in the Cockpit review and was fully aware of the intention to use full pressure suits similar to the S-901 J PPA in the U-2R. No objections have been registered that I have heard of to date.

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3. Reference paragraph 3, there is no question among the groups directly concerned (i.e., D/M, D/O, and D/R&D) that a full pressure suit is a valid requirement [redacted] IDEA-2747-66 and IDEA-0022-67) for use in the U-2R, so BPD/COMPT's question appears to be an invalid one.

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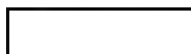
a. (Ref 3a) Project Directive No. 7-10-1 published 12 September 1966 with COMPT/OSA's concurrence, established a framework for management of U-2R development and within this framework the U-2R Executive Committee decided that a full pressure suit would be used in the U-2R (ref IDEA-2747-66). Since this directive accounts for USAF interface, the requirements for a joint CCB seems to be satisfied. Nevertheless, the procedures outlined in paragraphs 3a,b,c, of BPD/COMPT's memo will apparently be followed according to discussion between SAS/O/OSA and ASD/R&D/OSA.

4. Reference paragraph 4 of subject memo, the following comments apply.

a. (Ref 4a) What "stocks" are referred to by BPD/COMPT is unclear to me. [redacted] PPA's are purchased to meet a specific requirement and are therefore not found sitting on shelves waiting to be used. Even if there were some, it is unlikely that there would be sufficient numbers available to guarantee fitting of all U-2 pilots in the IDEALIST program. Furthermore, it is disheartening to hear of or see the concept proposed that any pressure suit will do. A great deal of time, effort, and money go into the development of reconnaissance equipment to accomplish specific objectives within the limits of performance of the vehicle carrying such equipment, and similar efforts are required for choosing the pilots protective equipment. Choosing a fighter pilot's PPA, or a NASA, SAC or other existing PPA for use by U-2 pilots simply because they are "pressure suits" is like choosing a "Brownie" camera for aerial reconnaissance just because it also takes photographs. The pilot of a U-2R will require a PPA that is as distinctly different from other PPA's as the U-2 is distinctly different from other existing aircraft.

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b. (Ref 4b) The Cost Proposal submitted has a delivery schedule as its final page that indeed shows



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delivery of PPA's covering the period from 1 July 1967 (for test pilots) through 30 September 1968. Using this schedule and including the six month lag on long lead time items a revised fiscal year fund requirement can be established. A revised fund requirement including this change will be submitted following discussions with the contractor on 23-24 January 1967. The statement by BPD/COMPT that "...except for test pilots, the requirement will not really jell until FY-69" does not agree with the schedule published by D/R&D which shows U-2R training conducted between February and June 1968 (FY'68), and initial operational capability to be attained as of 1 June 1968.

25X1 c. (Ref 4c) The Cost proposal clearly states that the [] for spares is an estimate. This estimate is based on extensive review of experience both in OXCART and EARNING programs. Spares include various items and materials that can be kept on hand at field stations in order to replace or repair items that fail or are removed for inspection, IRAN, overhaul, etc. This spare provisioning therefore insures maximum PPA utilization and minimum down time in keeping with maintaining continuous operational alert capability. It is obvious that this type of spares provisioning must be provided at the time the first PPA's are delivered and therefore funded for in FY-67. The remainder of funds required in this category are established to enable new project pilots to be outfitted if any come into the program or to replace PPA's lost in aircraft accidents etc. and as such should be funded in FY68 and 69. The revised request for funds to be submitted will reflect changes in this category.

d. (Ref 4d) Again, the cost proposal clearly states that this is an estimate based on experience obtained in a similar program. However, I agree that this figure is applicable only for a full year of PPA utilization, hence the revised request will reflect appropriate adjustments.

25X1 e. (Ref 4e) The design and development cost of [] is reasonable since we are concerned with modifying an existing PPA to meet the requirements for

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its use in an entirely different aircraft. In this respect we are indeed taking advantage of all previous R&D and the funds specified are required on a product improvement basis.

f. (Ref 4f) In plant Engineering/Administrative services provides sustained on-call service to provide guidance, advice, service, modifications, improvements, bulletins, changes, etc., promptly in response to customer requests. Maintaining this capability provides quick fixes when required in response to recommendations by users, accident boards, etc. These services would be required primarily after the majority of PPA's have been put into service, i.e., late FY-68, so that the revised request for funds will reflect changes for this category also.

g. (Ref 4g) I agree that it is unlikely that Engineering Change Kits will be required before FY-69 which will be reflected in the revised request for funds.

h. (Ref 4h) Revision and updating of Operation and Maintenance manuals, specifications, drawings and data would probably not be required before FY-69 or later. The technical manuals referred to are just that, i.e., operation and maintenance specs, drawings, data and instructions to be used by technical representatives and personal equipment technicians. A more detailed description of these manuals and the costs involved will be obtained from the contractor and any funding changes will be included in the revised request to be submitted. However, funds for manuals will definitely be required in both FY-67 and FY-68.

i. (Ref 4i) There is a considerable difference between the words "similar" and "same". The test equipment used [] is not the same (although it is similar) as that required for the proposed U-2R PPA. However, some equipment is the same and if it becomes clear that [] equipment will in fact become surplus we will only have to determine when such surplus equipment can be obtained and which equipment can be utilized. A certain amount of AGE will be required at the time the initial PPA's are delivered which will be identified in the revised fund request for FY-67.

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Cost estimates for FY-68 and 69 will have to await an investigation of availability  assets.

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5. With reference to paragraph 5 of the subject memo, the breakdown of charges and contractual arrangements are, in my estimation, items which are to be worked out between CMD/COMPT and the contractor once a go-ahead is obtained for acquiring this equipment. It seems inappropriate to delay obtaining required PPA's at this point in time over a question that CMD/COMPT would be able to answer when contract approval was pending.

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